

# THE FREQUENCY OF INDICANURIA

BY

R. M. GORDON

*(Received for publication November 6, 1923)*

## TEST EMPLOYED

To five ccs. of urine in a test tube were added one large drop of five per cent. potassium chlorate, then five ccs. of strong hydrochloric acid, followed by five ccs. of chloroform, the contents being mixed by inverting the closed test tube a couple of times. If no definite blue colouration appeared in the separated chloroform after thirty minutes, the result was regarded as negative.

## RESULTS OBTAINED

Three hundred and eighty cases were examined on one occasion each; of these, ninety were apparently healthy, normal individuals, twenty-two (24 per cent.) of whom gave positive results and sixty-eight (76 per cent.) negative. It is to be noted in this connection, that the same individual may give different results on various dates, or even at different hours on the same day. Thus a normal case tested on twenty occasions, was negative on twelve and positive on eight, a negative result frequently alternating with a positive. The remaining two hundred and ninety cases were undergoing treatment for various disorders. The results of the tests are shown in the table on page 550.

## REMARKS

The presence of indicanuria is usually attributed to excessive putrefactive changes in the intestine (Emerson (1913), Hawk (1919), Cole (1920), Heitzmann (1921)). Its presence in sprue cases is remarked on by several authorities. Thus Cammidge (1912) found it present in eighty-five per cent. of his cases; Rademaker (1906) mentions it as a diagnostic point, while Castellani and Chalmers (1919) and Byam and Archibald (1923) both refer to its presence; Bahr (1915) notes its occurrence in some of his cases, but regards its presence as of no great significance. Three out of

TABLE

Showing the frequency of indicanuria amongst three hundred and eighty individuals

	Number examined	Percentage positive
Normal individuals ... ..	90	24
Sprue ... ..	4	75
Amoebic Dysentery ... ..	35	94
Bacillary Dysentery ... ..	5	0
Diseases of stomach and small intestine other than the above ...	6	17
Diseases of large intestine other than the above ... ..	23	56
Diseases of the genito-urinary tract ... ..	17	30
Surgical conditions other than the above ... ..	65	15
Lung cases ... ..	62	40
Malaria ... ..	20	50
Various ... ..	53	27

the four cases examined by the present writer were positive. It will be seen from the table that the highest percentage of positive results (94 per cent.) was obtained from amoebic dysentery patients, while the five bacillary dysentery cases examined were all negative. Obviously the number of bacillary cases examined is too small to allow of definite conclusions being drawn, but the marked disparity between the two would suggest that the test may be of some value for differential diagnosis. Quincke and Roos (1893) have drawn attention to the constant presence of indican in the urine of two amoebic dysentery cases, observed by them for respectively eight and eleven months. Ten out of twenty cases of malaria examined gave positive results. The increase of indican in this disease has already been remarked upon by Marchiafava and Bignami (1900) and Craig (1909).

### CONCLUSIONS

Indicanuria occurs in about twenty-five per cent. of apparently normal individuals.

It was present in ninety-four per cent. of amoebic dysentery cases, but was absent from the urine of five cases of bacillary dysentery.

### REFERENCES

- BAHR, P. H. (1915). A Report on Researches on Sprue in Ceylon. *Res. Mem. Lond. School Trop. Med.* Vol. II, p. 58.
- BYAM, W., and ARCHIBALD, R. G. (1923). *The Practice of Medicine in the Tropics.* Vol. III, p. 2256.
- CAMMIDGE, P. J. (1912). Sprue: Its Diagnosis and Treatment (by Begg, C.), p. 49.
- CASTELLANI, A., and CHALMERS, A. J. (1919). *Manual of Tropical Medicine.* 3rd Edition, p. 1787.
- COLE, S. W. (1920). *Practical Physiological Chemistry.* 6th Edition, p. 318.
- CRAIG, C. F. (1909). *The Malarial Fevers,* p. 142.
- EMERSON, C. P. (1913). *Clinical Diagnosis.* 4th Edition, p. 152.
- HAWK, P. B. (1919). *Practical Physiological Chemistry.* 6th Edition, p. 152.
- HEITZMANN, L. (1921). *Urinary Analysis.* 4th Edition, p. 77.
- MARCHIAFAVA, A., and BIGNAMI, A. (1900). *Twentieth Century Practice.* Vol. XIX, p. 226.
- QUINCKE, H., and ROOS, E. (1893). Ueber Amöben-Enteritis. *Berlin. Klin. Wochenschr.* Vol. XXX, p. 1089.
- RADEMAKER, G. A. (1906). *Onderzoekingen naar aanleiding van een Geval van Indische Spruw. Dissertation.* Leiden.